

What is claimed is:

1. A vertical cavity surface emitting laser, comprising:
5 at least one quantum well having a depth of at least 40 meV and
comprised of InGaAs;
GaAsN barrier layers sandwiching said at least one quantum well; and
GaAsN confinement layers sandwiching said barrier layers.
- 10 2. The vertical cavity surface emitting laser of claim 1 wherein said
quantum well is up to and including 50 Å in thickness.
3. A vertical cavity surface emitting laser, comprising:
at least one quantum well having a depth of at least 40 meV and
15 comprised of InGaAs;
GaAsN barrier layers sandwiching said at least one quantum well; and
AlGaAs confinement layers sandwiching said barrier layers.
- 20 4. The vertical cavity surface emitting laser of claim 3 wherein said
quantum well is up to and including 50 Å in thickness.
5. A vertical cavity surface emitting laser, comprising:
at least one quantum well having a depth of at least 40 meV and
comprised of InGaAs;
25 AlGaAs barrier layers sandwiching said at least one quantum well;
and
GaAsN confinement layers sandwiching said barrier layers.
6. The vertical cavity surface emitting laser of claim 5 wherein said
30 quantum well is up to and including 50 Å in thickness.